a. using screen printing technique to print at least one conductive film which consists of at least an anode electrode and a cathode electrode on a surface of a substrate and drying thereof at a temperature ranging from 40 to 120 degree Celsius;

b. using screen printing technique to print an electric insulating layer on the conductive film except selected areas which remain bare and are reserved for forming an anode coupling, a cathode coupling, a work electrode, a reference electrode, and a circular area for the biological active layer which consists of the work electrode and the reference electrode;

c. using screen printing technique to print a layer of cellulose carrier on the circular area and drying thereof at a room temperature ranging from 20 to 30 degree Celsius;

A2 Cont

d. disposing an adhesive layer at the periphery of the circular area and adhering to thereon a layer of net protector for covering the biological active layer thereunder; and

e. dripping water solution which contains a biological active substance and a conductive mediator on the surface of the carrier and drying thereof in an ambience at a temperature ranging from 40 to 60 degree Celsius for completing the disposable plate electrode.

17. (New). The manufacture method of claim 16, wherein the substrate is selected from a group consisting of Polyvinyl Chloride board, Fiber Reinforced Plastics, Polyester suphone, Bakelite, PET, Printed Circuit Board, glass, and ceramics.

18. (New). The manufacture method of claim 16, wherein the carrier is a blended paste for screen printing use and is composed of microcrystalline cellulose, high molecule polymer, salt and water.

19. (New). The manufacture method of claim 18, wherein the microcrystalline cellulose has particle size less than 100 μm and is adulterated from 10% to 40% by weight.

20. (New) The manufacture method of claim 18, wherein the high molecule polymer is adulterated from 10% to 25% by weight and is selected from the group consisting of Polyvinyl alcohol, Polyvinyl pyrrolidone, Polyethylene glycol, geltin, and mixtures thereof.

21. (New) The manufacture method of claim 18, wherein the salt is adulterated from 1% to 5% by weight for adjusting pH value of the water and serving as a buffer solution, and is selected from the group consisting of Dibasic potassium phosphate, Potassium biphosphate, and Citric acid, the pH value ranging from pH 4.5 to pH 9.0.

22. (New) The manufacture method of claim 18, wherein the water is pure water obtained by distilling at least once.

23. (New) The manufacture method of claim 16, wherein the biological active substance is an immobilized or an unimmobilized substance which possess biological cognizable specialties for use to contact a test sample of a biological tissue included blood for generating chemical or biochemical reaction and is selected from the group consisting of enzyme, antigen, antibody, microbe cell, animal or plant cell, and animal or plant tissue.

24. (New) The manufacture method of claim 16, wherein the conductive mediator is for receiving electrons released after reaction of an enzyme and a test sample, and transmitting the electrons through an electrode conductor to a sensor for converting to sample concentration, and is Potassium Ferricyanide adulterated from 2% to 10% by weight.

25. (New) The manufacture method of claim 23, wherein the biological active substance is blended with the conductive mediator before use and composes of substances selected from the group consisting of enzyme, enzyme protector, conductive mediator, and phosphate buffer solution.

26(New). The manufacture method of claim 24, wherein the enzyme includes glucose oxidase and being adulterated in a range from 200U/ml to 1200 U/ml.

27(New). The manufacture method of claim 24, wherein the enzyme protector is selected from the group consisting of albumin, dextrin, dextran, and amino acid, and mixtures thereof, and is adulterated in a range from 0.1% to 1% by weight.

A2

28(New). The manufacture method of claim 24, wherein the conductive mediator is potassium ferricyanide adulterated in a range from 2% to 10% by weight.

29(New). The manufacture method of claim 24, wherein the phosphate buffer solution has pH value ranging from pH4.8 to pH7.5.